

I claim:

- 10 08937298-091397
20 26160-85276580
1. An apparatus for man-machine interface which comprises:
 - a. a display panel defining a display screen and hinge means at the bottom edge of the display panel;
 - b. a first support arm physically connected to the display panel hinge such that the display panel can be rotated by the human operator by hand;
 - c. a second support arm connected to the other end of the first support arm via a second hinge means;
 - d. a main unit having a third hinge means located near the front of the unit, wherein the third hinge means is connected to the other end of second support arm, such that the display panel, first support arm and second support arm can be rotated by hand through large angles independently or together for ergonomic human viewing;
 - e. said hinge means are such that they each have sufficient friction to physically support the display panel and support arms under gravity; and
 - f. the said main unit being sufficiently large and having sufficient mass to provide a gravitationally stable platform at all position adjustments.
 2. An apparatus of claim 1, further comprising a means for input of hand written and drawn information via a stylus input means, wherein the display panel, first support arm and second support arm can be folded together for ease of writing and viewing.
 - 25 3. An apparatus of claim 1, further comprising a means for azimuth rotation of the display screen through sufficient angles, such that when the apparatus is on a desk or table the display screen can be rotated through azimuth angles by hand to adjust for various operator positions.
 - 30 4. An apparatus of claim 1, in which the friction of the hinge means can be adjusted via hand tightened nut means, such that the hinge means can be locked securely in place for normal operating forces and to increase the friction over time to compensate for normal wear.
 - 35 5. A desktop computer comprising:
 - a. a display panel assembly defining a display screen and support structure with a first hinge pair near the two bottom corners of the display panel assembly;
 - b. a first support arm pair physically connected to the display panel assembly via the first hinge pair, such that the
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display panel can be rotated in inclination angle by either hand of the operator;

c. a second support arm pair connected to the other ends of the first support arm pair via a second hinge pair;

5 d. a means for digital data computing for, which is electrically connected to the display panel assembly and which controls the display assembly's operation;

10 e. a main unit having a third hinge pair located near the front corners of the unit, wherein the third hinge pair connects to the other ends of the second support arm pair, such that the display panel assembly, first support arm pair and second support arm pair can be rotated by hand through large angles independently or together for ergonomic human viewing;

15 f. said hinge pair means are such that they each have sufficient friction to physically support the display panel and support arms under gravity; and

g. the said main unit being sufficiently large to enclose the computing means including its power and associate electronics.

20 6. A desktop computer of claim 5, further comprising a means for input of hand written and drawn information via a stylus or pen means, wherein the display panel, first support arm pair and second support arm pair can be folded together for ease of writing and viewing.

25 7. A desktop computer of claim 5, further comprising a means for azimuth rotation of the display panel with respect to the display support structure, such that when the apparatus is on a standard desk or table the display screen can be rotated through azimuth angles by hand to adjust for various operator positions.

30 8. A desktop computer of claim 5, in which the display panel assembly contains the computing means and battery power, so that the display panel assembly can be removed from the main unit, so a user can operate the computer while hand carrying it in a mobile fashion.

35 9. A desktop computer communications workstation comprising:

a. a display panel assembly defining a display screen and first hinge pair at the two bottom corners of the display panel assembly;

40 b. a first support arm pair physically connected to the display panel by via the first hinge pair, such that the display panel can be rotated by the human operator by hand;

c. a second support arm pair connected to the other ends of the first support arm pair via a second hinge pair;

d. a main unit having a third hinge pair located near the

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front of the unit at each corner of the unit, wherein this third hinge pair connects to the other ends of the second support arm pair, such that the display panel, first support arm pair and second support arm pair can be rotated by hand through large angles independently or together for ergonomic human viewing;

e. a means for digital data computing for system control of the workstation and data communications, which is electrically connected to the display panel;

f. a means for two-way telephone voice communication which is interface to the computing means, wherein a handset, keypad, speaker and microphone may be included in the voice communications means;

g. a touch sensitive input screen and electronics, wherein the input screen may be sensitive to a pen or stylus, and wherein the electronics is connected to the computing means;

h. a computer keyboard having a multiplicity of finger operable keys, wherein the keyboard electrically connected to the computing means; and

i. a means for providing azimuth rotation to the display panel, wherein the user is able to adjust the position by hand and self-locking to a fixed position for viewing and data input.

10. A desktop computer communications workstation of claim 9, further comprising a mouse or trackball data input device electrically connected to the digital computing means, whereby additional user data input means is provided.

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